Flawed Measures, Flawed Inferences?

A Panel Study on the Accuracy of Recalled Vote Choices in Belgian Elections (2009-2014)

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ABSTRACT

Voter volatility has traditionally been an important research topic in electoral studies. The recent alleged increase in volatility levels has led to a renewed interest into investigating the determinants of individual-level volatility. Because of data-constrains most of these studies are based on information obtained through recall questions on previous voting behaviour, especially when switching between elections is focused upon. Even though researchers usually acknowledge that recalls of the previous vote are imperfect measures, relatively little is known about the extent to which these measures misreport the vote. Furthermore, we do not know how a reliance on recall questions affects findings when investigating the relation between political involvement and party switching. This paper aims to shed light on these questions by making use of the data from the Belgian Election Panel (BEP, 2009-2014). Our results confirm that recall questions imply a serious underestimation of the extent to which voters switch parties. For using the recalled vote to investigate the determinants of volatility, by contrast, there seems to be less reason to worry. The estimated effect of political sophistication on party switching is virtually the same regardless of whether one uses recall or panel-data.

KEYWORDS

Recall question; electoral volatility; party switching; recall accuracy; political sophistication

1. INTRODUCTION

Research on why some voters switch parties while others remain loyal to their party already dates back to the first survey-based studies on voting behaviour (Berelson, Lazarsfeld, & McPhee, 1954; Campbell, Converse, Miller, & Stokes, 1960). While there has since always been attention for this subfield in electoral behaviour, the presence of a process of dealignment and the observation by some scholars of an increased instability in voting behaviour over the last decades further strengthens the need for investigating vote switching (Schoen, 2011). Research on the dynamics of voting behaviour is important because of the insights it provides for a broad range of political theories (Van Der Eijk & Niemöller, 2008). Crucial in this regard is the fact that it are the vote switchers who feed in mechanisms of accountability in the electoral system and who allow for alterations in government (Bischoff, 2013; Mainwaring & Zoco, 2007). Stable voters, on the other hand, are instrumental in reproducing previous election results.

For investigating who switches parties and the reasons for doing so, panels are generally considered to be the most optimal data sources. However, a panel-structure comes with disadvantages as well, especially when investigating switching from one election to another – in contrast to changing one's mind over the course of an election campaign – is concerned. Importantly, panels suffer from attrition problems, due to mortality and non-response (Duncan & Kalton, 1987; Frankel & Hillygus, 2013). Most likely, this attrition is not random, leading to an effect on research findings. Furthermore, panel-conditioning effects negatively impact on the quality of measures in a longitudinal design as well (Warren & Halpern-Manners, 2012). Adding to these methodological concerns, the costs that come with panel designs have further prohibited a routine reliance on panel-data for investigating vote switching in consecutive elections. As an alternative, most research on switching between elections is based on recall questions where, in a cross-sectional survey, respondents are asked about their voting behaviour at an earlier election (Van Der Eijk & Niemöller, 2008).

The reliance on information obtained through recall questions has already received fierce criticism as a recall of the previous vote has been shown to be plagued by considerable errors (Van Der Eijk & Niemöller, 2008; Waldahl & Aardal, 2000; Weir, 1975). While unequivocally pointing out that recalls on previous voting behaviour are flawed measures, all these studies also clarify that hardly anything correlates strongly to incorrect recalls, so that

we do not have any knowledge on what exactly explains a flawed recall. As a consequence, we still know relatively little about what factors cause incorrect recalls and whether or how we could correct for it (Waldahl & Aardal, 2000).

The fact that recall data are biased due to large errors in reported voting behaviour has led to concerns about the validity of conclusions on the determinants of vote switching that are drawn from research on such data. The major reason therefore is that vote switching and wrongly recalling the previous vote are thought to be driven by the same factors (Converse, 1962). Low levels of political sophistication, e.g., might lead both to vote switching and to an erroneous recall of previous voting behaviour. However, while several scholars have already investigated the gravity of recall bias and its correlates (Van Der Eijk & Niemöller, 1983; van Der Eijk & Niemöller, 2008; Waldahl & Aardal, 2000, 1982; Weir, 1975), to our knowledge no one has yet investigated the impact of relying on recall data for investigating the causes of electoral volatility.

In this paper, we aim to shed light on this issue by comparing recalled and actual party switching in the context of the Belgian 2009 and 2014 regional elections. Making use of data from a representative election panel survey, we not only assess the quality of recall questions and their correlates, but also the impact of relying on recall data for drawing conclusions on electoral volatility. We start with an overview of the literature on recall data and potential sources for errors in recalling past voting behaviour. After formulating our theoretical expectations, we present the data used in this paper; the Belgian Election Panel survey (2009-2014). We subsequently present the results from our analyses and we end with some concluding remarks on the implications of our findings for research on electoral volatility.

2. SOURCES OF ERROR IN RECALL QUESTIONS

The quality of recall questions has already received quite some attention in the field of political behaviour. When researchers are able to compare recalled with observed vote choices in a previous election, the share of wrong recalls varies from about 15% in two-party systems (Himmelweit, Biberian, & Stockdale, 1978; Weir, 1975) to 25% and more in multiparty settings (Van Der Eijk & Niemöller, 2008; Waldahl & Aardal, 2000, 1982). The observation of errors of this size have led to harsh conclusions stating that *"recall data should not be incorporated into models of voting behavior"* (Weir, 1975: 53).

The reasons why voters wrongly report previous voting behaviour are manifold, but can be roughly divided into two groups; memory problems and issues related to cognitive dissonance.

Memory-problems are not unique to questions on the vote choice, but are thought to lead to errors in any type of recall question (Wagenaar, 1986). The extent to which voters *can* correctly remember what party they voted for in a previous election is linked to a number of factors. First, citizens' cognitive capacities are assumed to be of major importance, which is why the higher educated are thought to make less mistakes when recalling their previous vote (Schoen, 2011; van Der Eijk & Niemöller, 2008; Weir, 1975). Second, remembering one's previous vote is expected to be easier for the highly politically involved, as they have made a well-thought-out decision and attach more importance to the act of voting (Van Der Eijk & Niemöller, 2008; Weir, 1975). Third, it is more cognitively demanding to recall an exceptional event, which is why more errors are expected for unstable voters as well as for voters who voted for small or fringe parties (Himmelweit et al., 1978; van Der Eijk & Niemöller, 2008; Waldahl & Aardal, 2000). Fourth, the accuracy of a recall is expected to decline over time, because memory fades with the passing of time (Atkeson, 1999; Himmelweit et al., 1978). Additionally, intermediate elections can further distort the recall of the election in question (Smith, 1984; Waldahl & Aardal, 2000). Not remembering the party one voted for furthermore does not imply that a respondent will say so in a survey setting. Respondents can be expected to give an answer anyway and pretend remembering because they do not want to *'look foolish'* (Wright, 1993: 292). Recent research has indicated that a substantial group of citizens even 'remembers' false events (Frenda, Knowles, Saletan, & Loftus, 2013). Memory problems hence do not only lead to missing information, but result in wrong information as well.

Even if voters accurately remember what party the voted for in an election, they not necessarily correctly *report* their previous vote choice. To explain why voters would not do so, scholars refer to the theory of cognitive dissonance (Festinger, 1957). As *"people have a conscious or subconscious wish to act in accordance with earlier behaviour"* (Waldahl & Aardal, 2000: 374), they tend to adjust their previous preferences to be consistent with their current preferences (Himmelweit et al., 1978; Schoen, 2011; Smith, 1984). With respect to recalling the vote choice, respondents would therefore falsely report that in a previous

election they already voted for the party they chose to vote for in the most recent election (Waldahl & Aardal, 2000).

According to the memory-perspective it is easier to recall a stable vote. Additionally, voters who do not remember how they voted are likely to reconstruct their vote choice. This reconstruction, however, is influenced by information and events that have changed since (Joslyn, 2003; Wright, 1993). This process of memory replacement can be thought to lead voters to reconstruct how they previously voted in the same way as they come to their current vote choice, resulting in apparent stability. Furthermore, citizens – consciously or subconsciously – want to appear consistent. As a consequence, recall errors are not random, which could imply that they cancel each other, out but lead to an underestimation of the volume of party switching. For this reason, recall errors matter and warrant scrutiny from scholars investigating changes in voting behaviour (Himmelweit et al., 1978).

Moving beyond the individual level, some parties are likely to 'benefit' from recall issues and failing memories. More specifically, we could think of a bandwagon effect for parties who's vote share strongly increased from one election to the next. We think so, first, because – regardless of whether a voter actually switched parties – changes in public opinion are likely to strongly affect voters' memories of attitude change (Joslyn, 2003). Second, what Atkeson (1999) labelled the 'spiral of silence' as well should lead to bandwagon effects in recalled vote choices. Respondents are less likely to admit having voted for a party that is not performing well. Such a bias is present in regular post-electoral surveys, but can be expected to grow stronger over time. In sum, if a respondent voted for a party that the polls indicate to be losing strongly, socio-psychological processes render it unlikely that the respondent will actually report having done so.

The observation that recall questions lead to an important underestimation of the extent to which voters change parties from one election to another, has led researchers to investigate what voters are most prone to wrongly report their previous vote. A wide variety of variables, embedded in theories of memory-problems or cognitive dissonance have already been investigated (Van Der Eijk & Niemöller, 1983; van Der Eijk & Niemöller, 2008; Waldahl & Aardal, 2000, 1982; Weir, 1975). The findings of these efforts have not been very strong and explanatory power is generally quite low as well, as illustrated by van der Eijk and Niemöller (2008: 328), who stated: *"We were surprised to find that only a relatively small number of*

factors appeared to be associated at all with recall behavior". As a result, we still know relatively little of who is most likely to erroneously recall their vote. As Wright (1993: 313) has pointed out with respect to post-electoral surveys, if we have no 'sound knowledge' of the sources and correlates of errors, we cannot have confidence in corrections for these errors.

3. IMPLICATIONS FOR RESEARCH ON POLITICAL SOPHISTICATION

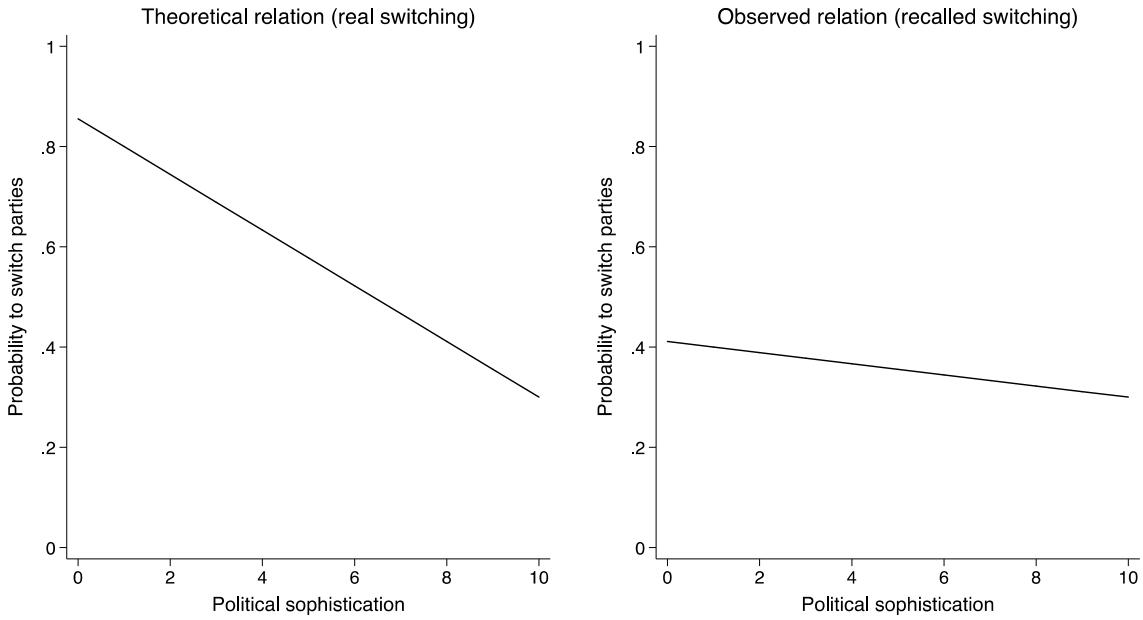
In the literature on volatility, there is considerable attention for the link between political sophistication and party switching (Dassonneville & Dejaeghere, 2014; Kuhn, 2009; Lachat, 2007). The central question is whether it are the high or the low politically sophisticated who are most prone to change parties from one election to another and the traditionalist view is that the low sophisticated voters are more unstable (Converse, 1962). For investigating this question, both cognitive as well as motivational aspects contributing to what is generally referred to as the concept of 'political sophistication' (Lachat, 2007; Luskin, 1990) are regularly looked at.

Doing so by means of recall questions is considered to be highly problematic, because theoretically, recall errors are assumed to be systematically related to the cognitive as well as the motivational aspects of political sophistication. With regard to motivation, Converse (1962: 580) has stated: *"the same theory which predicts that the less involved are more susceptible to party change suggests that the less involved will also give less accurate accounts of past political behaviour"*. Furthermore, the impact of memory on the quality of the recall directly links recall quality to citizens' cognitive capacities. As a result, there are good reasons to expect that the low politically sophisticated are also least likely to correctly recall their previous vote.

The question therefore raises to what extent the reliance on recall data would lead to incorrect conclusions on the link between political sophistication and party switching. Converse (1962: 580) – making use of recall data to investigate party switching – addressed this question by reasoning that recall data would merely *"weaken results in the most direct way"*. Figure 1 illustrates Converse's theoretical expectation on the link between political sophistication and party switching and what he assumes to be the impact of a false impression of stability among the least politically sophisticated. Expecting a negative relation between political

sophistication and the probability to switch parties, the underestimation of party switching among the least sophisticated should act to weaken this negative relation.

Figure 1. Converse's expectations: a weakened relation



This expectation is based on the assumption that the least sophisticated are more likely to give a false impression of stability by wrongly recalling what party they previously voted for. Empirically, however, there is only weak evidence of a link between factors as political interest or levels of education and recall errors (Van Der Eijk & Niemöller, 2008; Waldahl & Aardal, 2000, 1982). Even a small effect of political sophistication on the quality of the recall, however, could act to weaken the observed relation between sophistication and party switching. In line with Converse's expectation, we therefore hypothesize that while there is a negative relation between political sophistication and party switching, this relation is weakened when recall data are relied on.

4. DATA AND METHODS

For testing this hypothesis, we make use of the data from the Belgian Election Panel (BEP) study, in the context of which voters were interviewed before and after the 2009 regional elections as well as before and after the 2014 elections in Belgium. The Belgian political system is a particularly interesting case to investigate this research puzzle. It is a multiparty

system with a substantial amount of party-switching from one election to another (Dassonneville, 2012). Additionally, the focus on the 2009 and 2014 regional elections implies that there were two intermediate elections; the 2010 federal elections and the 2012 local elections. Consequently, the amount of faulty recalls of the 2009 vote can be expected to be quite elevated, resulting in sufficient variance to investigate.

The Belgian Election Panel (BEP) survey is a representative survey of voters in the two main regions of Belgium (Flanders and Wallonia), based on a sample from the National Register. The 2009 part of the panel survey consisted of three survey waves, two of which were before the 2009 regional elections of 7 June 2009 and one that was in the field shortly after.[1] A total of 1,698 respondents took part in this post-electoral survey wave and were interviewed by phone, which is 35% of the original sample (PartiRep 2009). In the run-up to the 2014 elections of 25 May 2014, these respondents were contacted again to participate in the 2014 part of the panel study by means of a paper questionnaire. A total of 792 respondents who took part in the 2009 wave 3-survey sent back this paper questionnaire, which is 46.7% of the population of interest for the current analyses (48.5% if we take into account mortality).

The measures of interest for investigating whether voters correctly or incorrectly recalled their vote are the 2009 vote choice as reported in the 2009 post-electoral wave and the 2014 recall of the 2009 regional elections vote. We assume the 2009-measure of the vote choice to be 'accurate', even though we have to be aware of the fact that sources for bias can already have affected the report shortly after the elections (Van Der Eijk & Niemöller, 2008). Given the fact that this wave was conducted immediately following the 2009 elections, however, we can be quite confident that these answers reflect actual voting behaviour (Atkeson, 1999). These results can be compared with how respondents recall their 2009 vote five years later, in the 2014 part of the BEP.

In order to take into account potential bandwagon effects on respondents' recalled votes, we take into account parties' expected electoral performance as apparent from pre-electoral polls. We do so for the parties respondents voted for in 2009 (as reported in 2009). Therefore, we

[1]. Post-electoral interviews took place between the end of June 2009 and the end of August 2009.

take the difference between parties' estimated performance as clear from polls published in April 2014[2] and their vote shares in the June 2009 regional elections.

For investigating the impact of political sophistication on both the quality of the recall and on vote switching, we take into account a number of indicators that have all regularly been used in previous research (Lachat, 2007; Luskin, 1990). We look at the effect of levels of education, political interest and political knowledge, all measured in 2009. For education, we distinguish between low, middle and high educated voters.[3] Political interest is measured by means of a 0-10 self-placement scale of general interest in politics. Political knowledge, finally, is measured as the total number of correct answers on five political knowledge questions.

We furthermore control for the effect of the socio-demographic variables language group (distinguishing Dutch and Francophone respondents), gender and age. Additionally, we take into account the literature that states that political disaffection is a more important determinant of volatility compared to political sophistication (Söderlund, 2008; Zelle, 1995). To this end, we verify whether the results of our analyses are robust to controlling for political trust[4], internal political efficacy[5] and external political efficacy[6] as well.

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[2]. Taking the mean poll estimates of the polls published by La Libre Belgique/RTBF, De Morgen/VTM and De Standaard/VRT.

[3]. We consider respondents without a degree, with only primary education degree or with an unfinished high school degree as 'low educated', respondents who finished high school are considered 'middle educated' and respondents with a college degree (university or non-university) are considered 'high educated'.

[4]. Political trust is measured as a 0-10 sumscale of trust in courts, the police, the media, political parties, the Flemish government, the Flemish parliament, the federal government, the federal parliament, social movements and politicians. [Cronbach's α: 0.87 ; Eigenvalue: 4.86]

[5]. Internal political efficacy is measured as a 1-5 sumscale of respondents' answers on the question to what extent they agreed with the following statements: 'I feel that I am competent to participate in politics', 'I think that I am better informed on politics and the government compared to most people' and 'I think I have a fairly good understanding of the important issues our society is facing' [Cronbach's α: 0.61 ; Eigenvalue: 1.69]

[6]. External political efficacy is measured as a 1-5 sumscale of respondents' answers on the question to what extent they agreed with the following statements: 'A regular citizen does have an impact on what government does', 'Turning out to vote does not make a difference, parties do whatever they want anyways (reverse coding)' and 'In election times some parties promise more than others, but in the end they do not fulfil their promises anyways (reverse coding)'. [Cronbach's α: 0.60 ; Eigenvalue: 1.66]

5. RESULTS

5.1. Recall accuracy

Before investigating the causes and consequences of recall errors, we assess the extent to which voters were able to accurately recall their vote for the 2009 regional elections five years later. As is clear from the results in Table 1, about two out of three voters accurately recalled what party they voted for in 2009, leaving one on three voters recalling to have voted for another party than what they reported shortly after the 2009 election. While elevated, this high amount of inconsistencies is in line with what van der Eijk and Niemöller (2008) observed for Dutch voters in the early 1970s and is only slightly higher than the latest Norwegian election surveys looked at by Waldahl and Aardal (2000).

The results in Table 1 additionally make clear that, in line with what previous research suggested, stability of the vote is a crucial factor affecting the accuracy of the recall. While 90% of the voters who intended to vote for the same party in 2014 as they did in 2009 accurately recalled their 2009 vote choice, only 36% of the respondents who switched parties were able to do so. These results suggest that the inaccuracy of recalls can be considered a major problem when investigating party switching.

Table 1. Accuracy of recall by stability of the vote

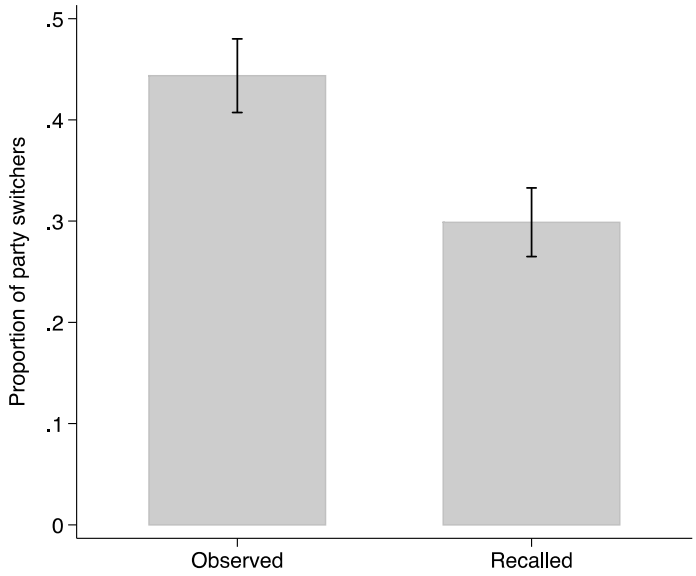
	Stable voters	Party-switchers	Total
Accurate recall	90.1%	35.9%	66.1%
Inaccurate recall	9.9%	64.2%	33.9%
N	384	265	690

Source: BEP, 2009-2014. Unweighted data.

Given that the accuracy of a recall is strongly related to whether or not a voter switched parties, the reliance on recall questions is likely to strongly bias measures of volatility. In Figure 2, we compare a measure of volatility based on observed vote choices in 2009 with a measure of volatility based on the recalled vote choice in 2014. The results indicate that while recall data would lead us to conclude that about 30% of the voters switches parties between 2009 and 2014, in reality 44% of the voters intended to vote for another party in 2014 than they did in 2009. Using recall data to investigate volatility hence leads to an underestimation of the extent to which voters change parties. The size of the bias, amounting to a 14

percentage points difference, is large and further adds to concerns about the validity of research investigating volatility by relying on recall questions.

Figure 2. Bias in measuring volatility when using recall question



Source: BEP, 2009-2014. Unweighted data.

5.2. Determinants of recall accuracy

In a next step, we assess the extent to which the accuracy of the recall is related to voters' level of political sophistication. There are good theoretical reasons – related to cognitive capacities as well as the effort of remembering – for thinking that the recall of the previous vote will be less accurate for voters who are lower educated, less interested in politics or who know less about politics. Despite these theoretical foundations, research on the determinants of recall accuracy have provided only thin empirical evidence for these explanations (Van Der Eijk & Niemöller, 2008; Waldahl & Aardal, 2000).

In Table 2, we explain the accuracy of the 2009-recall for respondents in the BEP-survey. As our dependent variable is dichotomous (1=accurate recall of the 2009 vote, 0=inaccurate recall), we present the results of a binary logistic regression. While we are mainly interested in whether or not the accuracy is affected by factors related to political sophistication, we also control for the socio-demographic variables age, gender and respondents' language group.

In Model I we present the results of an analysis only focusing on elements of political sophistication (education, political interest and political knowledge) and the socio-demographic controls. As evident from reading the Table, none of the indicators of interest is significantly related to accurately recalling what party one voted for in 2009. Even though the effects of political interest and knowledge are in expected directions, they are far from reaching a conventional level of statistical significance. As a result, the explanatory fit of this model is extremely low, with a pseudo-R^2 statistic of 0.02 only.

In Model II we additionally take into account potential bandwagon effects in respondents' recall of their previous voted. To this end, we control for the estimated gain in vote shares a party would obtain compared to the 2009 regional elections. The positive and significant effect indeed points in the direction of some bandwagon effects. As parties are expected to win compared to 2009, respondents are more likely to correctly recall they voted for this party. Alternatively, if a party is likely to strongly lose compared to its performance in 2009, the probability of a correct recall decreases.

The results in Table 1 indicated that there is a huge discrepancy in the extent to which stable and unstable voters recall what party they voted for in 2009. In Model III we take this factor into account by controlling for whether or not voters intended to vote for a different party in 2014 than the party they voted for in 2009. Doing so strongly increases the explanatory power of the model (to 0.26), but still does not indicate a significant relation between aspects of political sophistication and the probability to accurately recall one's 2009 vote. Additionally, the impact of bandwagon effects is no longer significant once actual switching is taken into account.

Additionally controlling for variables such as political trust, internal or external political efficacy furthermore only marginally increases the explanatory power of the model (see Table A in Appendix). Moreover, none of these political attitudes seems to be significantly related to whether or not a voter can accurately recall what party she voted for in 2009.

The main conclusion to draw from these analyses hence seems to be that individual-level characteristics or attitudes are no strong determinants for explaining why some voters accurately recall what party they voted for while others don't. With regard to political

sophistication more specifically, voters' level of education, their level of interest in politics or how much they know about politics do not significantly affect the accuracy of their recall.

The fact that the single best predictor to explain the accuracy of a recall is whether or not respondents changed parties is crucial and an important reason for concern when investigating the determinants of party switching by means of recall data. As the quality of the dependent variable in such analyses is highly dependent on the actual outcome on that dependent variable, it is questionable whether we can draw valid inferences from recall data for understanding party switching.

Table 2. Binary logistic regression explaining accurate recall of the 2009 vote

	Model I		Model II		Model III	
	b	se	b	se	b	se
Dutch (ref: French)	-0.016	0.172	-0.144	0.197	-0.239	0.239
Female (ref: male)	-0.277	0.172	-0.324	0.190	-0.473*	0.229
Age	0.012*	0.006	0.017*	0.007	0.015	0.008
Low educated (ref: middle)	0.151	0.233	0.135	0.264	0.015	0.313
High educated (ref: middle)	0.184	0.198	0.004	0.219	-0.051	0.261
Political interest	0.070	0.041	0.046	0.047	0.037	0.056
Political knowledge	0.042	0.065	0.051	0.072	-0.075	0.086
Poll - 2009 result of 2009 party			0.049***	0.014	0.029	0.016
Switched parties (observed)					-2.531***	0.232
Constant	-0.415	0.384	-0.121	0.424	1.788**	0.550
N	668		615		595	
pseudo R^2	0.021		0.047		0.257	

Source: BEP, 2009-2014. Unweighted data. Unstandardized coefficients and their standard errors are reported. Significance levels: * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

5.3. Consequences

Even though the reliance on recall questions leads to a large error and implies an overestimation of stability in voting behaviour, there does not seem to be a systematic individual-level link between political sophistication and recall accuracy. The more specific question then is whether, as Converse (1962) has stated, using recall data to investigate the link between political sophistication and party switching would indeed lead to finding weaker effects than what holds in reality. Or, is the reliance on recall data not affecting the conclusions one draws for the effect of political sophistication on volatility?

In a next step, therefore, we formally test this hypothesis by explaining party switching based on respondents' recall on the one hand, and explaining party switching as observed by comparing the 2009 vote as reported in 2009 with the vote intention for the 2014 elections. As a number of scholars have pointed out that the relation between political sophistication and party switching is curvilinear (Kuhn, 2009; Lachat, 2007), we also present models in which we include the squared effect of political interest and political knowledge.

The results of these tests are presented in Table 3. First, note that as was the case for explaining the accuracy of the recall as well, socio-demographics and political sophistication do a poor job in terms of explanatory power. The pseudo-R^2 value of the model based on recalled vote choices is 0.02 and is only marginally higher when observed voting behaviour is looked at (0.04). As for the variables of interest, we do not observe a significant impact of levels of education or interest in politics, regardless of whether recalled or observed voting behaviour is looked at. For political knowledge, by contrast –generally considered the best single indicator for measuring political knowledge (Delli Carpini & Keeter, 1996; Lachat, 2007) – we do observe a statistically significant effect in expected directions. As respondents have a higher level of political knowledge, they are significantly less likely to switch parties between 2009 and 2014. We can furthermore conclude that this effect is linear, as the alternative specifications, with the squared terms added as well does not indicate a significant impact of political knowledge.

More importantly, however, the results of our analyses offer mild support for Converse's expectation that relying on recall data would act to weaken results of the effect of political sophistication on volatility. When making use of recall data, we observe a significant effect of -0.15 of political knowledge (measured on a scale from 0 to 5) on the probability to switch parties. When – for the same set of respondents – using the observed voting behaviour and vote intentions instead of the recalled vote, this effect slightly increases to -0.17, significant at the 0.01-level. To illustrate this strengthening of the observed effect of political knowledge as the 'true' measures are used instead of the recalled vote, we plot the marginal effect of political knowledge on the probability to switch parties for both measures in Figure 3.

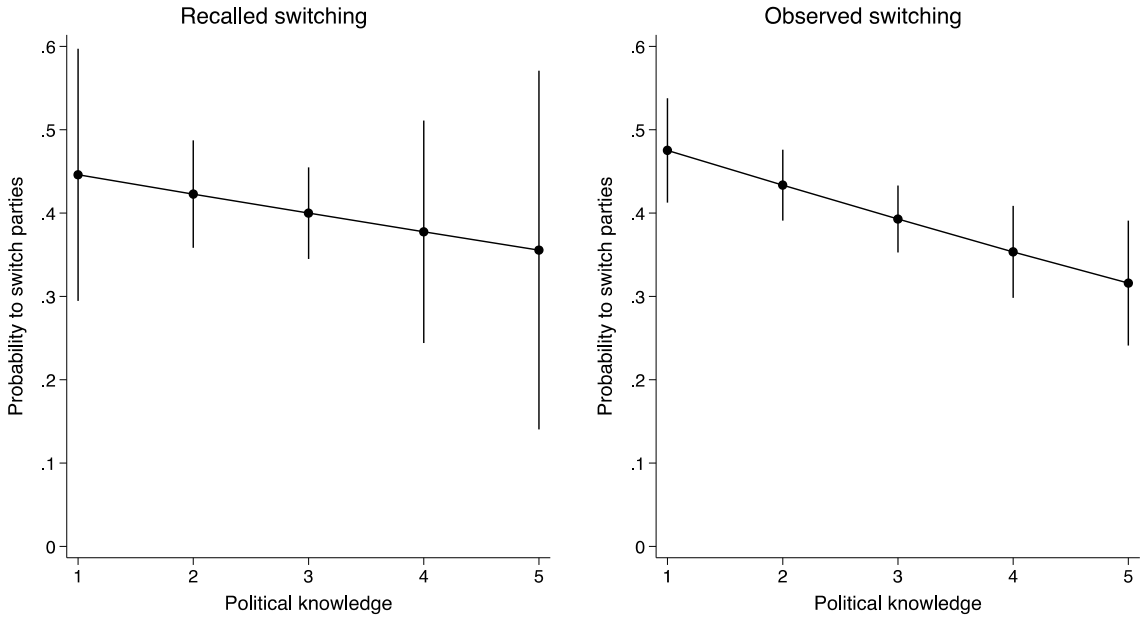
Table 3. Binary logistic regression explaining recalled and observed party-switching

	Model I *Recalled*		Model II *Recalled*		Model III *Observed*		Model IV *Observed*	
	b	se	b	se	b	se	b	se
Dutch (ref: French)	-0.374*	0.184	-0.382*	0.184	-0.327	0.170	-0.326	0.170
Female (ref: male)	0.018	0.189	0.014	0.190	-0.061	0.174	-0.068	0.174
Age	-0.014*	0.006	-0.014*	0.006	-0.010	0.006	-0.010	0.006
Low educated (ref: middle)	0.061	0.255	0.065	0.257	-0.220	0.231	-0.204	0.231
High educated (ref: middle)	0.046	0.218	0.059	0.219	-0.314	0.199	-0.301	0.200
Political interest	0.039	0.045	0.074	0.141	-0.064	0.041	0.032	0.130
Political knowledge	-0.152*	0.071	-0.322	0.210	-0.172**	0.065	-0.098	0.197
Political interest^2			-0.003	0.014			-0.010	0.013
Political knowledge^2			0.034	0.039			-0.014	0.037
Constant	0.085	0.419	0.153	0.513	1.354***	0.393	1.098*	0.475
N	636		636		636		636	
pseudo R^2	0.024		0.025		0.040		0.041	

Source: BEP, 2009-2014. Unweighted data. Unstandardized coefficients and their standard errors are reported. Significance levels: * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

Looking at the estimated effects based on the recalled vote, we would conclude that – even though the effect is in expected directions – there is virtually no impact of political knowledge on voters' probability to switch parties from one election to another. For observed volatility by contrast, we find more compelling evidence for the traditional expectation that the probability to switch parties declines as voters become politically sophisticated. The difference between both approaches, however, is not that pronounced.

Figure 3. Marginal effect of political knowledge on the probability to switch parties



Marginal effects and 95%-confidence intervals of knowledge on the probability to switch parties. Based on estimates of Model I and Model III in Table 3. All other covariate set at their mean values.

Given that party switching is regularly related to political disaffection and as it is claimed that this is a more important theoretical framework for understanding volatility compared to political sophistication (Zelle, 1995), we additionally verified whether these results hold when controlling for political trust, internal and external political efficacy. The results of these analyses are included in Appendix (Table B). Doing so, as holds in the main analyses, neither levels of education nor political interest have a significant impact on the measure of party switching. For political knowledge, the estimated effects are of about equal size and point to a marginally significant and moderate negative effect of political knowledge on the probability to switch parties. Focusing on political sophistication while taking into account other attitudinal variables as well, it seems, we would come to the same conclusions regardless of

whether recalled or observed vote choices in the previous elections are taken into account. We do find a strong negative effect, however, for external political efficacy. This might suggest that those who think that their vote will not have an effect on the political elites, are more likely to misreport or to forget the political message they wanted to send out to politicians with their previous vote.

6. DISCUSSION

Previous research has forcefully criticised the reliance on recall data in research on the dynamics of voting behaviour. Whether due to memory problems or because of voters' willingness to appear consistent, recall questions have been argued to be flawed measures that overestimate the extent to which voters are loyal to their parties (Van Der Eijk & Niemöller, 2008; Waldahl & Aardal, 2000; Weir, 1975). Our results, investigating the accuracy of a recall question in the Belgian multiparty system, add further weight to these concerns. About one on three voters does not succeed in accurately recalling what party she voted for five years ago.

The reliance on a recall question would consequently lead to an important underestimation of the extent to which voters switch parties from one election to another. For switching between 2009 and 2014 more specifically, based on a recall question we would conclude that 33% of the voters switched parties. Using the reported vote from 2009, by contrast, the conclusion is that a significantly larger proportion of 44% of the voters has switched parties.

Even though it goes without saying that recall questions are clearly no reliable measure for assessing the extent to which voters switch parties, that does not necessarily invalidate these measures for investigating the determinants of party switching. Concerns on the validity thereof have been raised in the literature, and these concerns are based on the assumption that some voters are more likely to accurately recall what party they voted for than others. In line with previous findings, however, our results indicate that individual-level characteristics or attitudes correlate only weakly with the accuracy of the recall. With respect to concept of political sophistication more specifically, contrary to what is generally assumed, the low sophisticated do not seem to be significantly less able to accurately recalling what party they voted for in the previous election.

With this crucial assumption not holding, is there need to worry about the inferences we draw when investigating the determinants of party switching by means of a recalled vote choice? Our analyses point out that results with respect to the impact of political sophistication on party switching would be – as argued by Converse (1962) – somewhat weakened if recall data were used instead of panel data. The difference is small however and results are roughly the same if one additionally controls for other factors that are regularly linked to volatility.

Clearly, recalled vote choices come with a large error and an important underestimation of the extent to which voters switch parties. When invalidating this measure, however, we should be careful not to throw the baby out with the bathwater. The costs that come along with the use of panel data have led most electoral research to be cross-sectional. Panels are definitely to be preferred to accurately measure who switches parties and who does not. But our findings do suggest that we could still rely on the wealth of cross-sectional election studies gathered by scholars around the world for gaining insights in the individual-level determinants of party switching.

Our study obviously comes with a number of important limitations, leading us to nuance our conclusions. Most importantly, while an interesting and highly volatile electoral setting, it remains to be seen whether our results hold in other countries than Belgium and at other moments of time as well.

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APPENDIX

Table A. Binary logistic regression explaining accurate recall of the 2009 vote

	b	se
Dutch (ref: French)	-0.252	0.251
Female (ref: male)	-0.473*	0.236
Age	0.013	0.008
Low educated (ref: middle)	0.083	0.324
High educated (ref: middle)	-0.211	0.274
Political interest	0.015	0.068
Political knowledge	-0.115	0.092
Poll - 2009 result of 2009 party	0.033	0.017
Switched parties (observed)	-2.572***	0.242
Political trust	-0.093	0.099
Internal political efficacy	0.236	0.176
External political efficacy	0.152	0.143
Constant	1.655*	0.807
N	574	
pseudo R^2	0.269	

Source: BEP, 2009-2014. Unweighted data. Unstandardized coefficients and their standard errors are reported. Significance levels: * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

Table B. Binary logistic regression explaining recalled and observed party-switching

	Model I *Recalled*		Model II *Observed*	
	b	se	b	se
Dutch (ref: French)	-0.375*	0.190	-0.262	0.177
Female (ref: male)	-0.004	0.193	-0.106	0.179
Age	-0.009	0.007	-0.012	0.006
Low educated (ref: middle)	0.021	0.261	-0.134	0.237
High educated (ref: middle)	0.101	0.224	-0.269	0.206
Political interest	0.054	0.055	-0.036	0.050
Political knowledge	-0.151*	0.074	-0.154*	0.068
Political trust	0.080	0.081	0.071	0.075
Internal political efficacy	-0.134	0.140	-0.073	0.128
External political efficacy	-0.101	0.119	-0.294**	0.110
Constant	0.015	0.622	1.864**	0.581
N	615		615	
pseudo R^2	0.025		0.052	

Source: BEP, 2009-2014. Unweighted data. Unstandardized coefficients and their standard errors are reported. Significance levels: * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.